

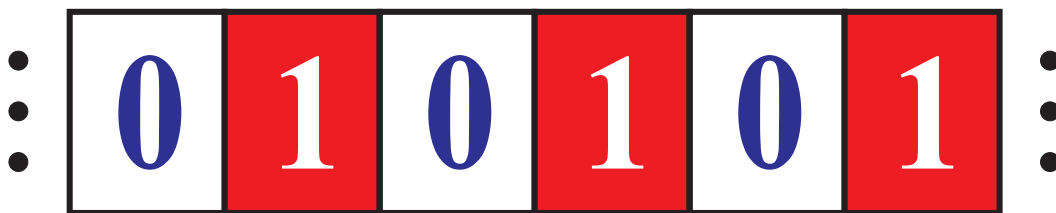


Modelo Fourier

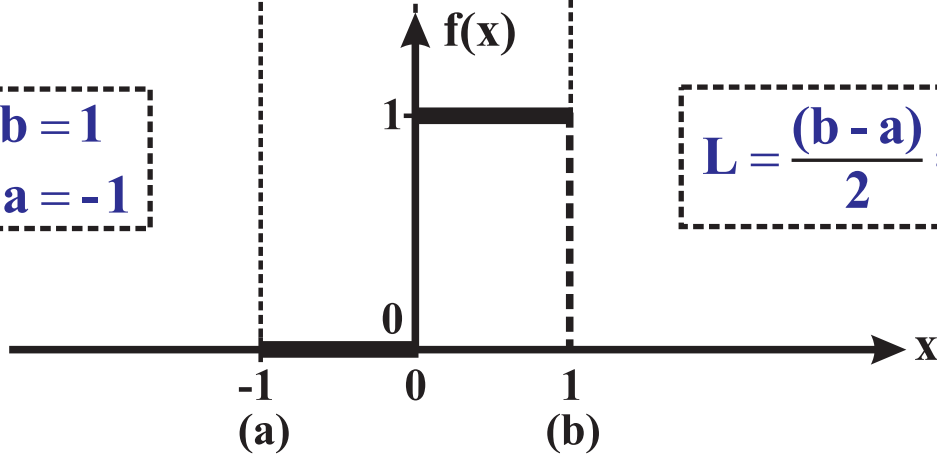
4 7 3 6 5 3 2 9 8



2 5 6 3 2 1 8 4 7



$$\begin{matrix} b = 1 \\ a = -1 \end{matrix}$$



$$L = \frac{(b - a)}{2} = 1$$

$$f(x) = \begin{cases} 0 & (-1 < x < 0) \\ 1 & (0 < x < 1) \end{cases}$$

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Temperaturas Médias das Regiões de Plantio de Cana

$$\Psi_k(x) = 13,98 + \sum_{k=1}^{\infty} \left\{ \left[-\frac{2}{k\pi} \cdot \text{Sen} \left(\frac{62k\pi}{61} \right) \right] \cdot \text{Cos} \frac{k\pi x}{61/2} + \left[\frac{2}{k\pi} \cdot \text{Cos} \left(\frac{62k\pi}{61} \right) - \frac{15}{k\pi} \cdot \text{Cos} 2k\pi + \frac{13}{k\pi} \right] \cdot \text{Sen} \frac{k\pi x}{61/2} \right\}$$

$$\Psi'_k(x) = \sum_{k=1}^{\infty} \left\{ \left[\frac{2}{k\pi} \cdot \text{Sen} \left(\frac{62k\pi}{61} \right) \cdot \frac{k\pi}{61/2} \right] \cdot \text{Sen} \frac{k\pi x}{61/2} + \left[\frac{2}{k\pi} \cdot \text{Cos} \left(\frac{62k\pi}{61} \right) - \frac{15}{k\pi} \cdot \text{Cos} 2k\pi + \frac{13}{k\pi} \right] \cdot \frac{k\pi}{61/2} \cdot \frac{\text{Cos} k\pi x}{61/2} \right\}$$

